

Mini Notebook Computer

Mini Notebook Computer

Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning:

A shielded power cord is required in order to meet FCC emission limits and also to prevent interference with nearby radio and television reception. It is essential that only the supplied power cord be used.

Use only shielded cables to connect I/O devices to this equipment.

The use of shielded cables for the connection of a monitor to the graphics adapter is required to assure compliance with FCC regulations.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the authority to operate this equipment.

Mini Notebook Computer

Version 1.0

Copyright © July 1998 All rights reserved.

This publication may not be copied, reproduced, translated, transmitted or reduced to any printed or electronic medium or to any readable form, or stored in a retrieval system, either in whole or in part without the written consent of the copyright holders.

The contents of this publication are subject to change. The manufacturer reserves the right to alter the contents of this publication at any time without notice. The contents of this publication may contain inaccuracies or typographical errors and is supplied for informational use only.

Products are noted in this publication for identification purposes only. Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation. Pentium and Pentium II are trademarks of Intel Corporation. Any other product names may be trademarks or registered trademarks of their respective holders.

Mini Notebook Computer

1: System Overview.....	11
System Features	11
The System Package.....	14
System Components.....	15
System Package Contents.....	15
System Hardware.....	17
System Software.....	20
The Phoenix BIOS Setup Utility.....	21
System Setup.....	22
Installing The Battery.....	22
Charging The Battery.....	23
Software Configuration.....	23
Quick Start.....	26
2: Using Your Computer.....	29
System Controls.....	29
Hardware Controls.....	32
Key Command Controls.....	32
System Indicators.....	35
The Keyboard.....	36
The Embedded Keypad.....	37
The TrackPoint.....	38

Mini Notebook Computer

The Power System.....	39
The AC Adapter.....	39
The Battery Pack.....	39
AC Power Operation.....	39
Power Protection.....	40
Battery Operation.....	40
Charging The Battery.....	40
Battery Warnings.....	41
Running On BatteriesWhat To Expect.....	42
Power Management Features.....	44
BIOS Power Management Features.....	44
Suspend Modes.....	44
System Disk Drives.....	45
Hard Disk Drive	45
Floppy Disk Drive.....	46
CD-ROM Drive.....	46
The Video Display System.....	47
LCD Display.....	47
External Monitor.....	47
Display Options.....	48
Display Drivers.....	48
Using PC Cards.....	49
Inserting & Removing PC Cards.....	49

Mini Notebook Computer

3: Connections, Options & Upgrades.....	51
External Connections.....	51
Connecting Common Peripherals.....	51
Connecting A Printer.....	53
Connecting A Computer Monitor.....	56
Connecting An External Keyboard.....	57
Connecting An External Pointing Device.....	58
Optional Hardware.....	59
Internal Hardware Options.....	59
Optional External Equipment.....	59
PC Cards.....	60
System Upgrades.....	61
System Memory Upgrades.....	61
Upgrading the Hard Disk Drive.....	65
4: Reference Information.....	68
Software Guide.....	68
BIOS Setup Utility.....	68
Additional Support Software.....	75
The Video Display Drivers.....	75
Display Driver Configuration.....	82
Care & Handling.....	86
Cleaning The Computer.....	89
Troubleshooting.....	90

About This Manual

This manual is organized in four chapters:

- 1: System Overview

Introduces the system package & features and explains how to set the computer up for the first time. There is a Quick Start for experienced users at the end.

- 2: Using Your Computer

Explains how to use the system controls, keyboard and pointing device. Also covers the power system and power management and how to use and the adjust system hardware.

- 3: Connections, Options & Upgrades

Explains how to connect external devices and covers optional equipment you can purchase and available upgrades.

- 4: Reference Information

Details on the system software including the BIOS Setup Utility and the video display driver. There are sections on care and maintenance and troubleshooting problems you might run into.

Mini Notebook Computer

The manual content is designed to allow you to easily find information you might need. Experienced users should be able to find information conveniently while less experienced users will find additional explanation where needed. We have assumed here that the user is not a first-time computer user and have not included details on the basic aspects of computer use.

Manual Icons

We use several icons in this manual to call your attention to points of information and warnings. The icons are:



Important point or warning



Useful information



Relates to software on the Support Floppy Disks

Mini Notebook Computer

x

Mini Notebook User's Manual

1: System Overview

This section of the manual describes the features of your computer system and then covers unpacking and identifying the system components and features. Following are some notes on setting up the system. There is a Quick Start section at the end for the experienced User.

Please note that you must install and charge the battery pack before you use the computer for the first time.

System Features

Your computer incorporates the following features. Not all models will have all the features listed. The feature set specific to your notebook depends on the ' configuration you purchased.

CPU:

Cyrix Gxm 200MHz no L2 cache.

Memory:

One 144pin SODIMM socket for SODIMM modules, maximum of 64MB using 16MB, 32MB or 64MB SDRAM module; ROM BIOS 256KB.

Video Display Memory:

9Mbit DRAM (IDRAM)

Mini Notebook Computer

Hard Disk Drive:

One removable 2.5 inch, 12.5mm (or 9.5 mm) thick HDD module; standard IDE interface; HDD can be upgraded.

Floppy Disk Drive:

Optional external 3.5 inch, 1.44MB FDD; connects to parallel port with supplied cable; power drawn from the computer.

CD-ROM Drive:

Optional external CD-ROM drive; standard IDE interface; connects to IDE port with supplied cable; power drawn from the computer.

Display:

Color 8.4inch TFT LCD with SVGA 800 x 600 resolution; color or STN or 8.2inch DSTN LCD with VGA 640 x 480 resolution. NeoMagic NM2097 PCI display chip supports up to 1024 x 768 resolution on external monitor.

Keyboard:

85-key with inverted T cursor keys; Windows 95 keys; 19mm Pitch & 2mm travel; internal & external PS/2 keyboards function simultaneously.

Mini Notebook Computer

External Ports & Interfaces:

VGA port: supports resolutions up to 1024 x 768; colors up to True Color

RS232 9pin serial port

Parallel port, supports EPP/ECP

PS/2 connector for external keyboard or PS/2 pointing device

RJ-11 modem telephone jack (optional)

Internal microphone, internal stereo speakers

Infrared module, IRDA compatible, supports SIR mode

Type II 32bit Card Bus PC Card slot (supports 16 cards)

CD-ROM drive connector

Battery:

Six-cell NiMH

Dimensions:

27.6cm (W) x 17.9cm (D) x 3.6cm (H)

Weight:

1.65 Kg

Mini Notebook Computer

The System Package

Your notebook computer system comes packed in a convenient carton that is designed to protect the system components while in transit.

After you unpack the system you should keep the carton in case you later need to send the computer in for service or upgrade installation.

Unpacking

Open the carton and carefully remove the system components. Be sure to check that all the components listed in the next section are present and undamaged. The battery pack is packed separately and must be installed and charged before use. It is possible that your vendor has included items in addition to the basic system components listed in this manual. Check to see if there is also a packing list in the carton with a full accounting of the carton contents.

If There's A Problem

In the unlikely event you discover a problem with anything in the box, stop, make a note of the problem and call your vendor before proceeding. It is usually simpler and more effective to deal with any damage or missing item problems before you start using the computer.

Mini Notebook Computer

The Battery Pack is not installed in the computer when shipped. It must be installed and charged before use.

System Components

Your notebook computer system has several parts to it including hardware components and support software.

System Package Contents

The computer package includes the following hardware components

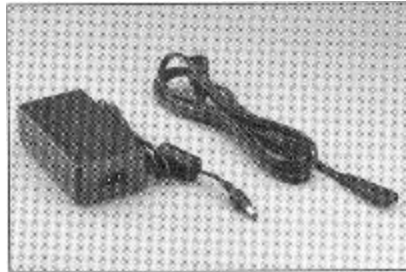
- The Mini Notebook computer
- External AC adapter
- AC adapter power cord
- Battery pack
- Support Software Package including:
 - Support CDROM
 - Support Floppy Disk
- User's Manual

Mini Notebook Computer

System Components

The system includes the following hardware components:

- The Mini Notebook computer
- AC Adapter & Power Cord



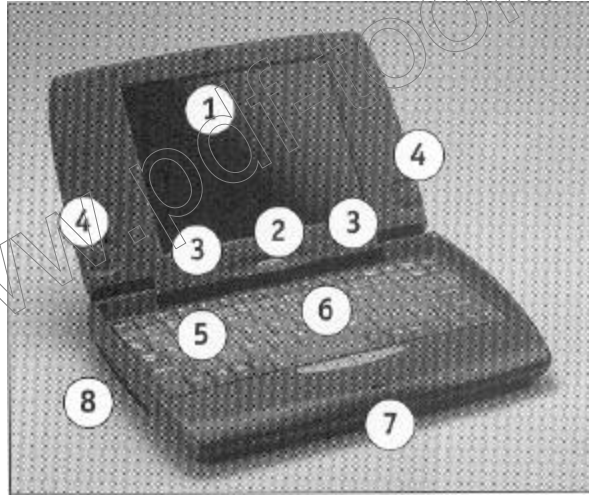
Mini Notebook Computer

Open View

1. LCD screen
2. Power button
3. Microphone
4. Speakers
5. Keyboard
6. TrackPoint
7. Status LEDs
8. PC Card slot

System Hardware

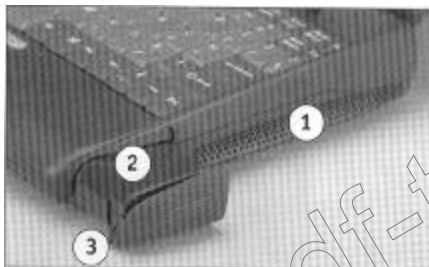
The locations of the external ports, connectors and other features are shown in the following figures. The internal modem is a factory-installed option.



Mini Notebook Computer

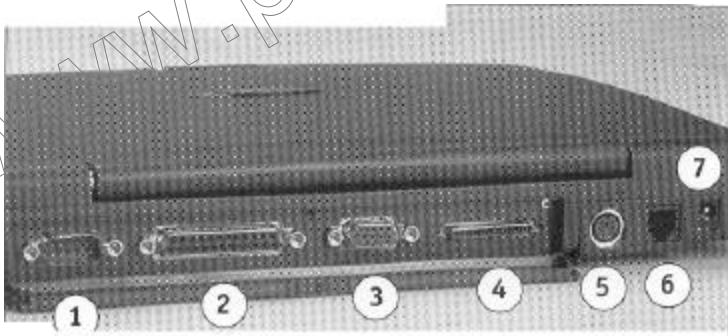
Right View

1. Hard disk drive bay
2. Battery
3. Battery cover & latch



Rear View

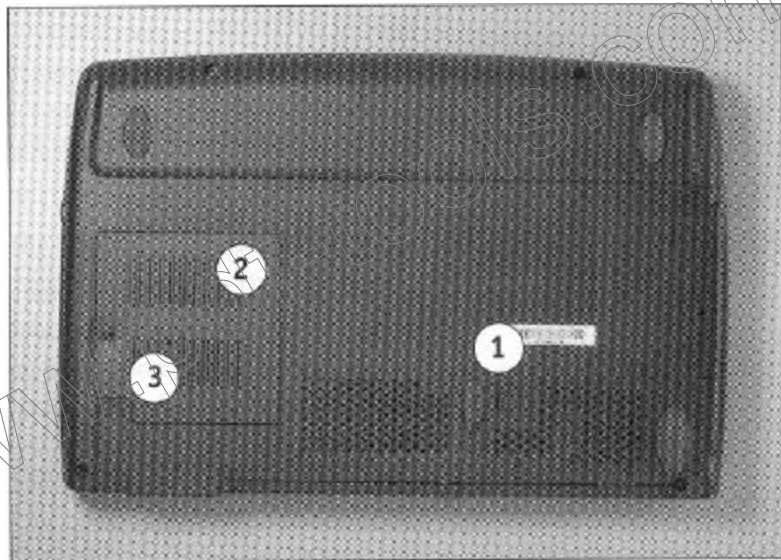
1. Serial port
2. Parallel port
3. VGA connector
4. CD-ROM drive connector
5. External PS/2 port
6. Modem jack (optional)
7. AC adapter connector



Mini Notebook Computer

Bottom View

1. Hard disk release
2. Memory compartment
3. Clear CMOS button access hole



Mini Notebook Computer

System Software

The computer has support software that comes on a Support Floppy Disk. In all likelihood the appropriate drivers will be installed when you get the computer. They are provided on the Support Floppy Disk in case you should ever need to re-install them.

The Support Floppy Disks

The two Support Floppy Disks have the support software for the computer on them. The support software includes driver software to support the system's various hardware components that use drivers. There are drivers for the display hardware, CD-ROM drive, PC Card and optional modem hardware. The drivers support Windows 95 and Windows NT and are organized in category specific directories on the disks. Disk 1 has the display drivers and Disk 2 has all the rest.

Display Driver

The display driver supports the computer's NeoMagic display chip. Versions are supplied for both Windows 95 and Windows NT.

Audio Driver

The audio driver is for the Cyrix audio hardware and is SoundBlaster compatible. Under Windows NT you must disable the audio in the audio configuration.

Mini Notebook Computer

CD-ROM Driver

The CDROM driver is for the optional external CDROM drive. You do not need to use the driver under Windows 95, but you will want to install it if you want to access the CDROM in MSDOS mode.

PC Card Drivers

The PC Card driver supports the computer's 16-bit Card Bus PC Card slot. The driver also supports 16-bit PC Cards.

Modem Driver

The modem driver is for the optional factory-installed internal modem and provides model-specific support for the ESS hardware.

The PhoenixBIOS Setup Utility

This computer uses the PhoenixBIOS from Phoenix Technologies. The Setup Utility, which is stored in the BIOS ROM, allows you to set or alter a number of system configuration settings including configuring the power management settings. See Chapter 4 for more information.

Mini Notebook Computer

System Setup

There are several things you need to do before you use your computer for the first time. These include:

- Install the battery
- Charge the battery
- Check the software configuration
- Install an Operating System if necessary

When you receive your computer it may already have an Operating System installed and be ready to go as soon as you charge the battery.

Installing The Battery

The battery pack is not installed when you get the computer. After unpacking the system components as described earlier, you must install the battery pack and charge it the first time you use the computer.

To install the battery, slide the battery pack into the battery compartment and secure the latch mechanism in the computer housing. The latch slides slightly upward to secure the battery.

Charging The Battery

To charge the battery, connect the power cord to the AC adapter and connect the power lead from the adapter to the power jack on back of the computer. Plug in the AC adapter, preferably to a protected power source like a surge protected outlet strip, or to a wall outlet. Charge the battery completely, which should take approximately 2 hours with the computer turned off and the battery in Quick Charge mode. With computer turned on the battery slow charges in Slow Charge mode and takes about 8 hours to charge. While the battery is charging the battery charge status LED will light. When the battery is fully charged the LED will turn off.

Quick Charge time is about 2 hours

Software Configuration

When you turn on the computer it will run through a self test at start-up. When the test is done a configuration screen, which lists some information about the computer will appear. The system BIOS does the test and displays the screen. All models of this computer come equipped with an internal hard disk drive. In most cases the hard disk drive will have an Operating System installed on it. If an OS is installed it will load after the configuration screen appears. If no OS is installed you will get a message indicating this.

The System BIOS

The Phoenix system BIOS, is software that is permanently stored in a chip on the computer. The BIOS includes a utility program for recording and altering the BIOS settings. This Setup Utility creates a record of system hardware and Settings that is stored in a small amount of dedicated memory.

When you get the computer. These BIOS settings should already be set and you shouldn't need to do anything. If for some reason computer doesn't start up properly and you see a warning message regarding the BIOS configuration as follows:

- Press the F2 key to enter the Setup Utility.
- Press the F9 key to load the Setup Defaults
- A Setup Confirmation message appears "Load default configuration now?" Press the Enter key to confirm.
- Press the Esc key. The utility will jump to the Exit menu screen. The "Exit Saving Changes" item will be selected. Press the Enter key again to save the new Settings and the system will restart.

When you complete this procedure the computer should run through the Power On Self Test (POST) and the hardware configuration screen. If there is still a problem, consult your vendor. For more information on the Phoenix BIOS Setup Utility see Chapter 4.

Operating Systems

In general, it is likely that you purchased the computer with an Operating System (OS) already installed, and that the OS is Windows 9 or a later version. If an OS is installed on the hard disk drive, the hard drive is already partitioned and formatted for that OS. When you turn the computer on the OS will load and you can use the computer or install more software.

If the hard disk drive is blank you will need to install an OS. This situation is unlikely unless the computer was intentionally purchased with a blank hard disk because the purchaser specifically intends to install an OS themselves. In such cases, we assume here that you know what you are doing and will refer to the OS documentation for installation instructions. You will need the optional CD-ROM drive to install a current OS.

Quick Start

This section is for experienced User's familiar with notebook computer systems. To set up the system for first time, do as follows:

1. Unpack the system components and verify that all items are present and undamaged. If you discover that something is missing or damaged, contact your vendor immediately for instructions.
2. Unwrap the battery pack and install it in the battery compartment. Slide the battery into the compartment so that it latches securely.
3. Connect the power cord from the AC adapter to power connector on the rear of the computer, connect the AC power cord to the AC adapter and plug the AC power cord into an AC outlet. It is preferable to use a good quality surge protector outlet strip rather than plugging the computer directly into a wall.
4. Quick charge the battery for 2 hours with the system turned off to fully charge it.
5. Most systems will have an Operating System already installed on the hard disk drive. If no Operating System is installed, follow the instructions that come with the Operating System you will use to format the hard disk drive and install the OS.

Mini Notebook Computer

The Support Floppy Disks have drivers for Windows 95 and Windows NT as noted earlier in this section. The Support Floppy Disk 2 CD-ROM drive driver software you may need to install in order to access the CD-ROM drive while installing an Operating System.

2: Using Your Computer

This section explains how to use your computer hardware. It describes the System controls and indicators and explains how to use the power system, disk drives and display.

System Controls

Your computer has both hardware and keyboard command system controls that control various systems.

Hardware Controls

The hardware controls include switches, eject buttons and both built-in and optional external keyboards and pointing devices. There are two switches, the Power switch and Closed suspend switch. The eject buttons, include PC Card eject button and the eject buttons on the optional CD-ROM and floppy disk drives. The computer has both a built-in keyboard with an embedded numeric keypad and a TrackPoint pointing device. You can also connect an external keyboard-type pointing device to the external PS/2 port at the rear of the computer.

Mini Notebook Computer

If you press the Clear CMOS button without removing the battery and disconnecting the AC adapter, the next time you turn on the computer you will get a blank screen. Turn off the computer, remove the battery, disconnect the AC adapter and press the button again. When you turn the computer on again you should get the normal startup screen.

Power & Cover Closed Suspend Switches

The Power/Suspend switch is a push button switch, the Cover Closed Suspend switch is built into the hinge and works automatically.

The Power Switch

The Power switch is the oval button centered below the LCD screen. Push the switch once to turn the system on or off. Note that when you shut down the system under Windows 95 OSR2 or later the system power shuts off automatically so you don't need to use the power switch to turn the system off.

The Cover Closed Suspend Switch

The Cover Closed Suspend switch is recessed into the lower housing just below the screen hinge. When you close the computer's lid on the LCD housing pushes the switch and puts the system into Suspend mode. When you open the computer again you have to press any key on the keyboard to wake up the system.

The Clear CMOS Button

Pushing this button clears the BIOS Setup configuration record stored in CMOS memory. The system will then load defaults when you next turn on the computer. This button is in the system memory compartment. There is an access hole in the compartment cover. To press the button, use

Mini Notebook Computer

Eject Buttons

There is one eject button on the computer, the PC Card eject button, and there are eject buttons on the optional the floppy disk drive and CD-ROM drive.

PC Card Eject Button

The PC Card ~~bay~~ has one Type ~~PC~~ PC Card slots. The slot has an eject button at the front side of the slot bay. The button latches inside the housing to protect it from being broken off. When you insert a PC Card the button does not pop out. To eject a card, ~~push the button~~ push the button to unlatch it so that it pops out. Push the button again to eject the PC Card. Push the button a third time to secure it in the bay again.

CD-ROM Drive Eject

Pushing the CD-ROM drive eject button spins down the drive and ejects the drive ~~tray~~ tray. ~~Don't push the eject button~~ Don't push the eject button while a disk in the drive is being accessed by the system. Push the tray back in to close the drive.

Floppy Disk Drive Eject

Inserting a floppy disk into the floppy disk drive causes the eject button to protrude from the drive. To eject a disk, push the button in the drive and the disk will pop out. Never eject a disk while the system ~~is~~ is accessing it. You could ~~damage the disk, the drive, or both.~~ damage the disk, the drive, or both.

Key Command Controls

There are several system controls that are executed using keyboard command combinations and various control keys. You execute a command by pressing a command key while pressing the Fn key.

Miscellaneous Controls:

- **Fn+Esc: System Suspend**
You can put the system into Suspend mode manually using this command. Using the command again wakes up the system. To wake the system up press any key on the keyboard.
- **Fn+F3: Speaker Mute**
This command toggles the built speakers on and off.

Display Controls:

- **Fn+F4: Display output control**
This command sets which display is active. The options include the LCD only, an external monitor, and simultaneous display on both screens.
- **Fn+ F7: Decrease Screen Brightness**
Decreases screen brightness on all active display screens.
- **Fn+ F8: Increase Screen Brightness**
Increases screen brightness on all active display screens.

Mini Notebook Computer

- Fn+ F9: Decrease Screen Contrast (no effect on TFT LCD)
Decreases screen contrast on any active external display screen. Has no effect on the computer's active TFT LCD screen.
- Fn+ F10: Increase Screen Contrast (no effect on TFT LCD)
Increases screen contrast on any active external display screen. Has no effect on the computer's active TFT LCD screen.

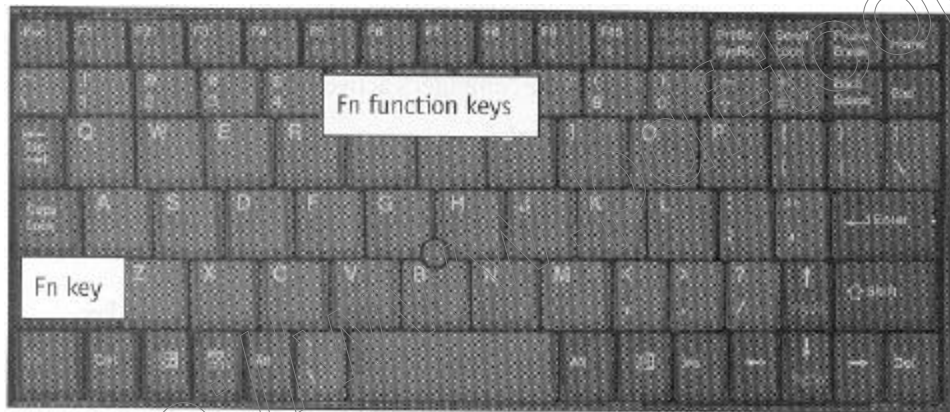
Volume Controls:

- Fn+ F5: Increase volume
Increases volume of the computer's built-in speakers.
- Fn+ F6: Decrease volume
Decreases volume of the computer's built-in speakers.

Mini Notebook Computer

Fn key commands

Light-blue characters and icons are activated by Fn key.



Mini Notebook Computer

System Indicators

The computer has four LED status indicators including, left to right, Battery Charge, Low Battery, Power Status and Hard Disk Activity LEDs. The status LEDs are located at the front edge of the computer.

Battery Charge LED

The Battery Charge LED lights when the battery is charging and goes off when the battery is full.

Low Battery LED

The Low Battery LED comes on when the battery needs to be recharged.

Power Status LED

The Power Status lights when the computer is turned on and goes off when you turn the computer off.

Hard Disk Activity LED

The Hard Disk Activity LED flashes on and off when the system is accessing the hard disk drive.

Mini Notebook Computer

The Keyboard

The keyboard has all the standard computer typing and control keys. It also has a numeric keypad and some other key functions "embedded." The standard letter, number and symbol keys are printed in white. The computer control and embedded keys are printed in light blue.

The Keyboard Layout



The Embedded Keypad

To use the embedded keypad, turn on the Number Lock feature by pressing the Num Lock key once. With Num Lock on, the numeric keys are active. If you hold down the Fn key while Num Lock is on it turns off the embedded keypad while you hold the key down. The standard characters are then active.



The Embedded Key

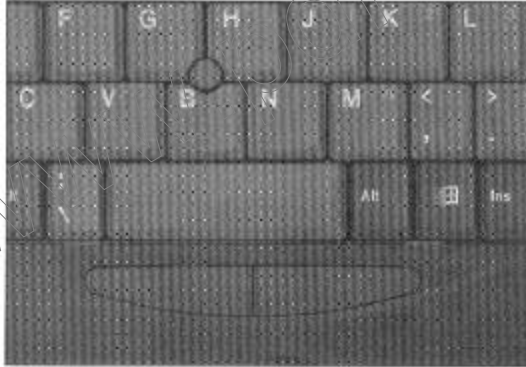
Mini Notebook Computer

The TrackPoint

The TrackPoint pointing device is comprised of the pointing stick and a left and right buttons set below the keyboard.

The TrackPoint

The TrackPoint pointing stick is mounted in the center of the keyboard. It performs the same function as a mouse. You direct the screen cursor by gently pushing the stick top around. The TrackPoint buttons work the same as those of other pointing devices with a left and a right "mouse" button. The TrackPoint takes a little practice to get used to. You can adjust the pointing device configuration in the Mouse control panel under Windows 95. The TrackPoint uses the Operating System's built-in pointing device support and does not require a driver.



Mini Notebook Computer

The Power System

This computer's power system includes two components, the external AC adapter and the Nickel Metal Hydride (NIMH) battery pack.

The AC Adapter

The external AC Adapter has two components, the adapter block with an attached cord that connects to the computer, and a lightweight power cord that plugs into the adapter block. The adapter block has a green LED indicator light that lights when the adapter is powered and functioning properly.

The Battery Pack

The battery pack is a six-cell NIMH pack encased in a plastic housing with a plastic compartment cover on one end that forms part of the computer housing and secures the battery in the battery compartment. Please note that you must charge the battery the first time you use it, as explained in Chapter 1.

AC Power Operation

When you run the computer on AC power, the Power LED and the LED on the adapter should be on. If either light is not on there may be a problem with the AC power system.

When running on AC power, the battery charges if it is not fully charged, or it trickle charges to maintain the full battery charge.

Mini Notebook Computer

Power Protection

Always try to connect the AC adapter to a surge suppressor or other power conditioning device to ensure that the computer is protected from power anomalies that can damage the computer. This is particularly important when traveling anywhere where the power supply is suspect. You may want to purchase a surge suppressor specifically designed for mobile computing as these are lightweight and ensure that you can protect your computer when you travel.

Battery Operation

This section explains how to charge and exchange the battery, and includes information on operating the computer on battery power.

Charging The Battery

You must charge the battery completely the first time you use it. This is explained in Chapter 1. Please go back and refer to that explanation if you missed it. The NiMH battery takes about 2 hours to charge with the computer turned off, and charging stops automatically when the battery is fully charged. The Battery Charge LED will turn off when the battery is charged.

Normally you should charge the battery with the computer turned off. When you use the computer with the AC adapter, the battery charges automatically but can take as long as 8 hours to charge completely.

Battery Warnings

This computer has two battery warning levels. When the battery charge gets to the point where you should recharge it, the first level battery warning will automatically initiate and Low Battery LED will come on. At this point you should save your work and either connect the AC adapter to supply power to the computer and charge the battery or you should turn the computer off and fast charge battery.

If you ignore the Low battery warning and your HDD has save To Disk Partition the system will automatically and without save the system state to the hard disk drive and turn the computer off when the second Low Battery warning initiates. Otherwise the System will shut down directly. When you turn the computer on again the system resumes directly to the state that was saved. This feature will not initiate if Auto Save To Disk is set to Off in the BIOS Setup Utility.

Critical Battery Level

If you ignore the low battery warnings and the battery charge level reaches a critically low level, the system will automatically shut down without warning. If you do not connect the AC adapter or shut down the system before this happens you will lose any unsaved work when the system shuts down automatically.

Switching Batteries

If you buy an extra battery, you can replace the installed one when it runs out, and recharge it later. To remove the battery pack, turn the computer and unplug the AC adapter. Slide the compartment cover to release the battery and pull it out. Insert the second battery. Make sure the compartment cover latch secures the battery in place so that it won't come loose.

If you are using a replacement battery for the first time, make sure you charge it fully, just as you do the original battery when you first use the computer. You can refer to Chapter 1 for a reminder of the details.

Running On Batteries—What To Expect

The length of time a battery charge will last varies considerably depending on your work habits, the software you use and whether or not you use the power management features. The computer has a power management scheme that, when used effectively, increases the operating time of a battery charge. In general, any program that makes extensive use of the disk drives will use more power. Even the Operating System can be a power drain if you use too many programs at the same time, so it is better to run programs you are actively using.



Battery charge duration is approximately 1.5 to 2 hours without power management. Using power management substantially extends it.

Another influential factor is the hardware configuration of the model you purchased. Power consumption will depend on which LCD screen and CPU you have, and whether you have the optional modem and any PC Cards installed. The faster your CPU, the more power it will use at full speed. The larger LCD screen uses more power.

Obviously it is difficult to calculate an accurate figure for how long one battery charge will last given all the variables involved. On average, you can expect to get approximately 1.5 to 2 hours from one charge without power management. With the power management default settings active you can expect substantially more than this. How long a battery charge lasts depends on a number of variables, which makes estimating usable charge duration inexact.

If your normal computer use exceeds the averages assumed, you are likely to get less from battery charge than the figures noted here. However, if you are careful to conserve power, you can expect one charge to last longer.

Power Management Features

This computer has extensive power management features that enable you to extend the length of time one battery charge will last. The power conservation features included BIOS controlled feature, both automatic and configurable, and User activated Suspend modes.

To run the Setup Utility press the F2 key during the POST when the system is first starting up.

BIOS Power Management Features

The computer will automatically activate a number of background power conservation features when the “Power Savings” item in the “Power” section of the BIOS Setup Utility is Enabled. Enabling this item also activates the configurable settings that you access from the same screen. There is more information on the OS power management features in the Setup Utility section in chapter 4.

Suspend Modes

The Fn + Esc Suspend command activates the configured Suspend mode when you press it. There are two Suspend modes, which you select from the “Suspend Mode” line in the “Power” section of the BIOS Setup Utility.

Suspend Suspend to RAM using only RAM refresh current

Save To Disk “SuspendTo-Disk” feature saves system state to a dedicated partition on the hard disk drive and turns the system off. The next time the system is turned on the saved state is

Mini Notebook Computer

System Disk Drives

This computer incorporates three disk drives in its design, the hard disk drive, floppy disk drive and the CD-ROM drive. The floppy disk drive and CD-ROM drive are external options for this computer. The hard disk drive is removable to allow installing an upgrade.

Hard Disk Drive

The system hard disk drive is mounted in a removable frame that inserts in the computer. The hard disk size depends on the configuration you purchased. The computer's default set up is configured to automatically recognize the hard disk and configure the system for it.

When you get your computer the hard disk will probably already be partitioned and formatted and have an Operating System installed. If this is the case you can use your computer right out of the box.

If no Operating System is installed the hard disk will need to be partitioned and formatted and have an OS installed. If this needs to be done, follow the installation instructions that come with the OS you want to install.



Never eject a floppy disk while the system is accessing it.

Hard Disk Care

Over time, the software file management system that is part of any OS can develop problems that, if left unfixed, can result in lost data or even the inability to access files necessary to load the OS. Regular use of a hard disk maintenance utility such as the ScanDisk utility provided with Windows or equivalent products from third party software vendors is highly recommended.

Floppy Disk Drive

The floppy disk drive is an external option that connects to the computer's parallel port with the supplied cable. The drive uses standard 1.44MB floppy disks. Insert disks label up into the drive. When the disk is inserted the eject button protrudes from the drive. Push the eject button in to eject a disk.

CD-ROM Drive

The CD-ROM drive is an external option that connects to the CD-ROM connector on the computer with the supplied cable. The CD-ROM drive can read all commonly available CD-ROM formats as well as play audio CDs.

Driver software for the drive is supplied on the Support CD and Floppy disk. The driver software may be necessary to use the CD-ROM to install an Operating System or to access the drive under MS-DOS. Installation instructions are included with the driver installation files.

The Video Display System

The computer's video display system uses the NeoMagic display chip and incorporates the built-in display screen and an external display option.

LCD Display

This computer has three LCD display options, an 8.4-inch TFT "active matrix" LCD screen and either a 7-inch STN or 8.2-inch DSTN LCD. The 8.4-inch LCD can display a maximum screen resolution of 800 x 600 pixels. The 7-inch and 8.2-inch LCDs can display a maximum resolution of 640 x 480 pixels. Both screens support color settings from 16 colors up to the True Color setting's millions of colors. Resolution and color settings are controlled by the display driver being used. Display drivers are explained later in this section. Higher resolution can be displayed on an external monitor connected to the VGA port.

External Monitor

You can connect any multifrequency computer monitor to the computer via the external VGA connector. The connector is the standard 15-pin connector used for this purpose. The display chip can display resolutions up to 1024 x 768 pixels on an external monitor.

Mini Notebook Computer

Display Options

You can switch the computer's active display between the LCD screen and an external monitor. You can also set them to display simultaneously. You set the active display using the Fn+F4 key command described in the Key Command Controls section earlier in this chapter.

Display Drivers

This computer comes with display drivers for the NeoMagic display chip that support Windows 95 and Windows NT 4.0. The drivers are stored on Support Floppy Disk 1.

The drivers control the display chip's color and resolution settings for the LCD screen and an external display. Since the greater likelihood is that you will use this computer with Windows 95 or 98, the display controls for Windows 95 are described in detail in the Display Drivers section of chapter 4. The installation procedure is also explained, although it is very likely that if you receive Windows 95 as the Operating System for your computer, it and the NeoMagic display driver will already be installed.

Mini Notebook Computer

Using PC Cards

The computer has one Card Bus compliant PC Card slot for Type II PC Cards. Using PC Cards requires Operating System support. If, for example, you get your computer with Windows 95 installed, it will be ready to use PC Cards. This means that the Operating System recognizes and access a PC Card when it is inserted in one of the slots. Any software a card may require to operate must be installed separately. Refer to the instructions that come with any card you will use for additional information. Driver software for the PC Card slot is provided on Support Floppy Disk 2.

Inserting & Removing PC Cards

You can insert PC Cards while the computer is turned on. Insert a card in a slot so that it inserts fully into the bay. If you need to connect an external connector to the card, do so.

To remove a card, press the eject button in so that the button pops out. Press the button again to eject the card. Pull the card out of the slot. Press the eject button in again to secure it in the bay.

Mini Notebook Computer

Inserting a PC Card

Insert the card face up and press it all the way into the bay. Some cards may protrude from the bay depending on their design.



3: Connections, Options & Upgrades

This section explains the upgrade options for your computer and how to install them. This includes expanding system memory, adding larger hard disk drive and connecting optional hardware.

External Connections

When you use your computer, you're likely to want to connect various peripherals to it. This section covers how to do it. The port and connector locations are pointed out in chapter 1.

Connecting Common Peripherals

When you use your computer at an office or at home you may want to take advantage of the option to use desktop peripherals. Doing this has two advantages. You may find that a desktop keyboard and monitor are more comfortable for extended use for some kinds of work. In addition, using peripherals and the AC adapter will prolong the life of the less easily replaced components built into your computer.

Connecting Peripherals The Basic Procedure

To connect any peripheral device to your computer, you should always follow this basic procedure:

1. Make sure everything is turned off, and better yet, unplugged.
2. Set up the peripheral according to the instructions in the manual that comes with it.
3. Connect the device to the computer with a suitable cable.
4. Plug in the device and the computer.
5. Turn everything on.
6. Configure the device or other software if required.

Remember, never connect or disconnect anything other than a PC Card from your computer while anything is turned on. Turn the power to both the computer and any peripheral devices off before you connect them.

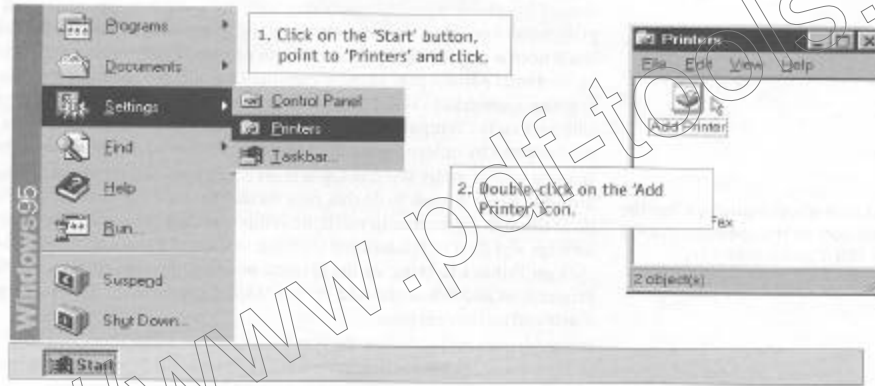
The standard configuration for the parallel port on the computer is LPT1 using IRG 7 at address 378.

Connecting A Printer

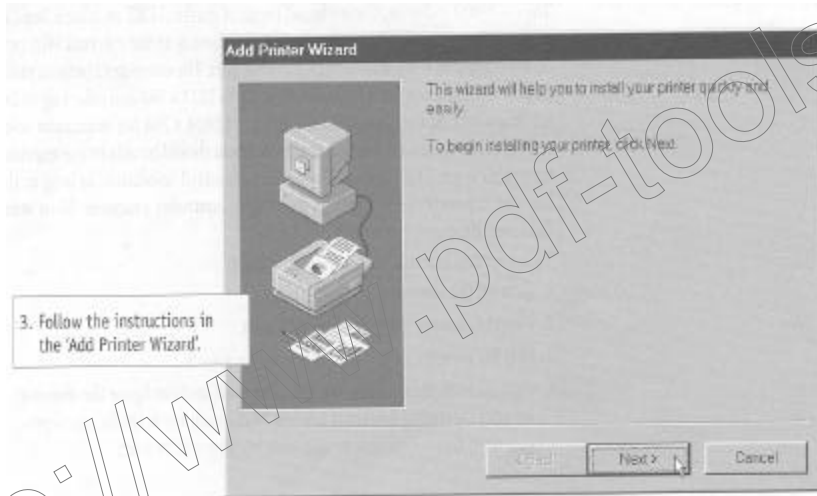
You will most likely use a printer with your computer. You may even have purchased a portable model to take along with the computer. Whatever kind of printer you have, it is almost certainly going to connect to the parallel port. You'll need a parallel cable to connect the printer. If your printer supports a bidirectional parallel port or other enhanced parallel port features make sure to get an appropriate cable. Connect the end of the cable that matches the parallel port on the computer to a 25pin male connector. Secure the cable to the computer by tightening the thumbwheels attached to the cable connector. To use a printer under Windows, you must configure a printer driver by using the Add Printer Wizard. To do this, click on the Windows Start button and then point through the menus to reach the Printers and Folders window. Double-click on the Add Printer icon and follow the Add Printer Wizard instructions. This process is illustrated on the next page.

Printer drivers are located on the Windows CD or on a disk that came with the printer. To test the connection, connect the printer to the Printer port and print a test page.

Mini Notebook Computer



Mini Notebook Computer



Connecting A Computer Monitor

The onboard video supports a broad range of external CRT monitors. You can connect a standard multifrequency desktop monitor to the external VGA port on the computer. It is a standard 15-pin VGA port. The computer's built video display circuitry can produce resolutions up to 1024 x 768 and colors up to 24-bit True Color. At the maximum resolution of 1024 x 768 the maximum color setting is 256 colors. In practice, this means you should be able to use any multifrequency monitor up to 19" inches at a standard resolution, as long as the monitor supports the resolutions the display controller produces. Most standard multifrequency monitors can do this.

To connect an external monitor do as follows:

1. Turn off the computer.
2. Plug the monitor cable into the VGA port.
3. Plug the monitor power cord into a power source.
4. Turn on both the monitor and the computer, and configure the monitor for your Operating System if needed. Many monitor manufacturers provide a configuration disk for use with Windows 95 or later.

Mini Notebook Computer

Display Switching

You can switch active displays modes by using the display Fn key command. Pressing the Fn+F4 key command selects between the LCD screen, an external monitor and displaying simultaneously on both screens. Press the key command repeatedly until you reach the mode you want.

An external monitor will work in standard VGA resolution (640x480x16 color VGA mode) in DOS mode without using a video driver, but you must have a video driver for Windows installed in order for Windows to run.

You can use the Windows video driver with an external monitor. Refer to the Display Drivers section in chapter 4 for more information about video drivers.

Connecting An External Keyboard

You can connect a full-size keyboard to the PS/2 port. The PS/2 external Mouse/ Keyboard port requires a PS/2 keyboard or a standard AT keyboard used with a PS/2 adapter. Just plug the keyboard in to the port when the system is turned off and it will work. No driver is required.

Mini Notebook Computer

Connecting An External Pointing Device

You can use an external serial or PS/2 Micro-compatible pointing device such as a mouse or a trackball with your computer. Both will work under Windows and will work in DOS session with a driver installed.

Serial Pointing Devices

If you want to use a serial pointing device you must set the PS/2 Mouse item on the main screen of the BIOS Setup Utility to the [Disable] setting. This disables the TrackPoint and the external PS/2 port. Using a PS/2 device instead is more flexible and doesn't disable the TrackPoint pointing stick.

PS/2 Pointing Devices

To use, a PS/2 pointing device such as a mouse or trackball, plug the device into the PS/2 port while the system is off. With the external device plugged in the computer will detect that an external PS/2 pointing device is connected and activate it automatically when you turn on the computer. When an external pointing device is connected both the device and the TrackPoint pointing stick are active.

Mini Notebook Computer

Optional Hardware

This computer has some optional hardware components that you can purchase either when you get the computer, with the exception of the optional modem, which is a factory-installed option that you have to specify when you buy the computer.

Internet Hardware Options

The Modem Option

A Fax Modem is available as a factory installed option. The modem supports voice telephony functions including Caller ID. The modem RJ-11 telephone jack is located at the rear of the computer.

Optional External Equipment

The computer also has two of external equipment options, an external floppy disk drive and an external hard drive.

The Floppy Disk Drive

The optional floppy disk drive connects to the computer with a supplied cable. The drive is a standard 3.5 MB drive.

Mini Notebook Computer

To use the drive, with the computer turned off, plug the cable into the drive and then into the drive connector on the computer. The drive draws power from the computer.

The CDROM Drive

The optional CDROM drive connects to the computer with a supplied cable. The drive is an ATAPI IDE **ESATA** device. A software driver for the drive is supplied on Support Floppy Disk 2.

To use the drive, with the computer turned off, plug the cable into the drive and then into the drive connector on the computer. The drive draws power from the computer.

PC Cards

The Type II PC Card slot is CardBus compatible and can use the full range of available PC Cards. Many types of PC Cards are available from third-party vendors, such as LAN or Wireless Modem cards that can add additional functionality to your computer.

System Upgrades

You can expand your computer's capabilities by adding additional system memory or installing a larger hard disk drive.

System Memory Upgrades

The computer's system memory is upgradeable to a total of 64MB. The computer has one memory module socket for SODIMM module. The computer ships with a module installed in the socket.

You install a memory upgrade by removing the installed memory and installing another module. A module must meet the required memory specifications noted below:

- 144-pin SODIMM using 3.3V SDRAM
- Module capacity of 16MB, 32MB or 64MB

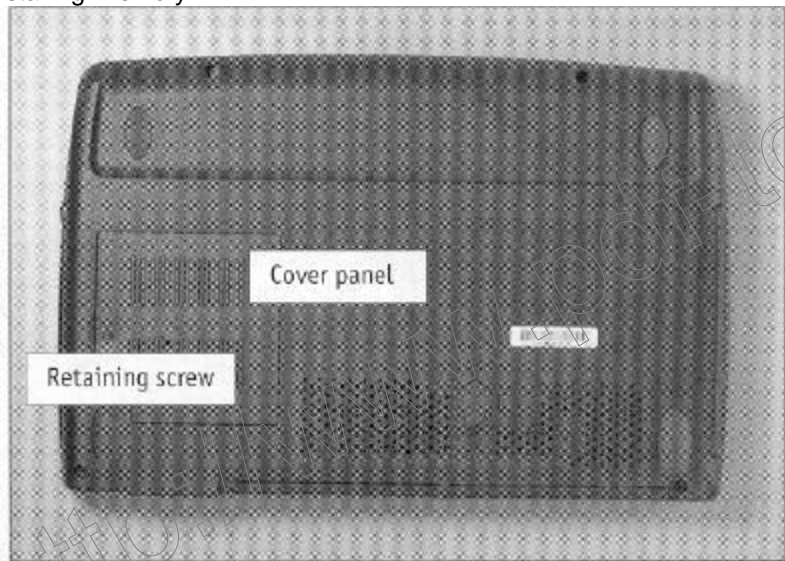
The SODIMM memory sockets are located under the access panel in the base of the computer. To install an upgrade, do as follows:

Mini Notebook Computer

1. Remove the panel by removing the screw that secures it to the computer.
2. Remove the installed module. The ~~set~~ has retaining dips at each side that secure the module in the socket. Push the clips to the side to release the module. It should pop up slightly, allowing you to lift it out of the socket.
3. Insert a suitable memory module in the empty socket ~~at a~~ slight angle to the circuit board. The module will only insert in one orientation so make sure the module edge fits in the socket properly. Don't force it. If you think there's a problem, turn the module over and try the other orientation. Gently ~~press~~ the module into the socket so that the retaining dips fit over the edge of the module and secure it in place.
4. When you're finished, replace the cover panel and secure it to the case with the retaining screw.
5. Turn the system on and check the ~~memory~~ count that the system ~~forms~~ when it is starting up to make sure the system recognizes the new memory.

Mini Notebook Computer

Installing Memory



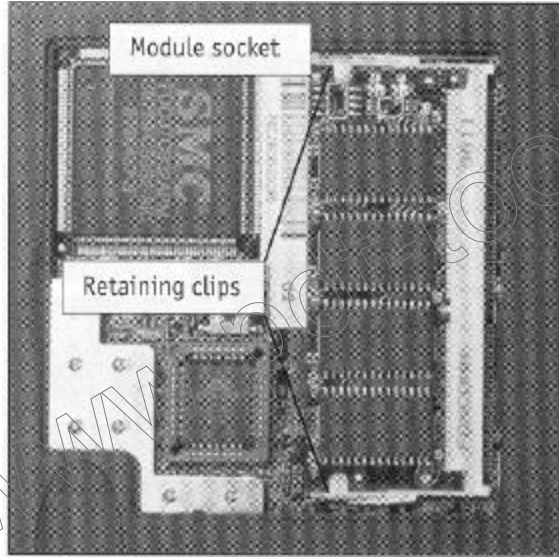
Remove the memory compartment cover panel by removing the retaining screw and lifting off the cover panel.

Mini Notebook Computer

Installing Memory

Install an upgrade SODIMM by removing the installed module and replacing it with the upgrade.

SODIMM module



Upgrading the Hard Disk Drive

This computer uses a 2.5-inch, maximum 9.5mm high IDE hard disk drive that mounts in a bay on the right side of the computer. The hard disk is mounted in a frame that slides into the computer housing. The frame is held in place by a latch on the underside of the computer.

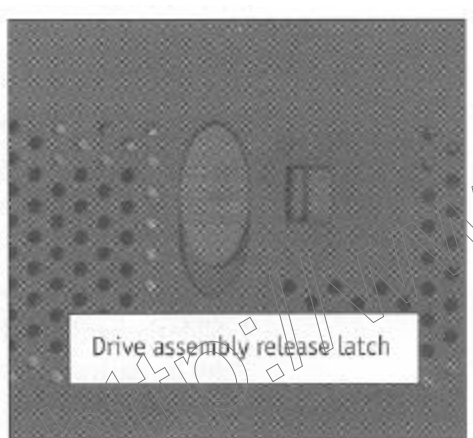
You can buy upgrade hard disk drives from your vendor with the upgrade hard disk already installed in another mounting frame. All you then need to do is remove the existing hard disk drive assembly by sliding the mounting frame release forward, pulling out the existing drive assembly and slide in the new drive assembly, making sure it latches securely in place.

Alternatively, you can buy a third party hard disk drive and install it in the existing mounting frame. To install a hard disk drive this way, do as follows:

1. Slide the latch release tab sideways to unlock the latch and press the latch button forward to release the mounting frame.
2. Pull the mounting frame out of the computer.
3. The hard disk drive is attached to the frame tray with screws. Remove the two screws on the bottom then the two screws on the side.
4. Slide the hard disk drive out of the tray, disconnecting it from the connector on the frame. The connector is delicate, so be careful.

Mini Notebook Computer

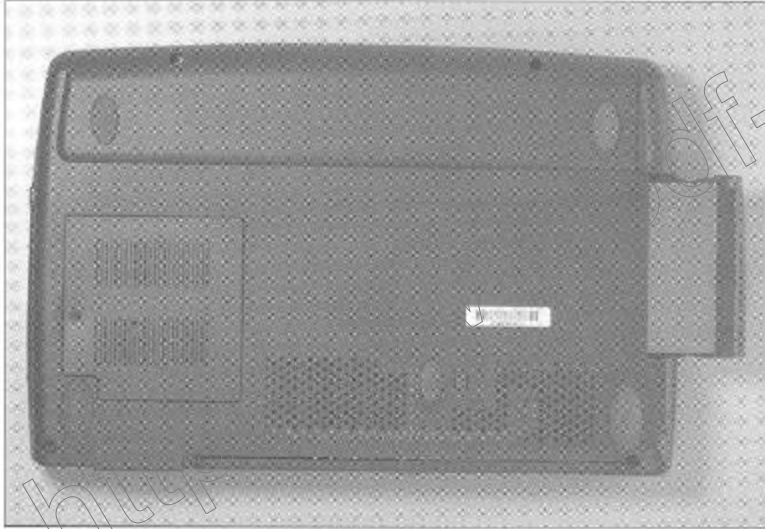
5. Slide the new drive into the tray so that the connector on the drive inserts in the frames connector.
6. Replace the mounting screws to attach the new hard disk drive to the mounting frame.
7. Slide the drive assembly back into the computer, making sure the latch is secure and then slide the latch release back to the locked position.
8. Turn on the computer to allow the system BIOS to automatically detect the new hard disk drive's configuration parameters.



Mini Notebook Computer

Installing a Hard Disk

Slide the hard disk drive assembly out of the compartment and either slide in an upgrade assembly or the drive in the original assembly and reinsert it. Make sure the latch is secure and the latch release is locked.



4: Reference Information

This section provides some detailed reference information about some of the computer's software components. There is also information on taking care of the computer and solving problems that might arise.

Software Guide

This section covers some of the software components that come with your computer. These include the Phoenix BIOS Setup Utility, the Windows 95 video display driver and some miscellaneous support software.

BIOS Setup Utility

The BIOS is software built into the computer that controls the basic system functions. The BIOS uses a configuration record created by the Setup Utility that defines the system configuration and sets some basic system controls. Every time you turn the computer on, the BIOS is the first thing that operates and puts the system through a self-test called the Power On Self Test, or POST. When the system is booting up, the BIOS uses the configuration record, which is stored in a chip on the computer. In addition, the Setup Defaults default configuration record is permanently stored in the computer.



If you press the Clear CMOS button without removing the battery and disconnecting the AC adapter, the next time you turn on the computer you will get a blank screen. Turn off the computer, remove the battery, disconnect the AC adapter and press the button again. When you turn the computer on again you should get the normal start-up screen.

When you get the computer, it will already have a Setup configuration record stored in CMOS memory. The computer will refer to that record when you turn the computer. In general, you will not need to use the Setup Utility unless there is a problem with the configuration record or you want to change the settings. To clear the configuration record, push the Clear CMOS button (see page 2.2). The system will then load the default settings the next time you turn the system on. This section explains the various parts of the Setup Utility and how to access and use the program. The Setup Utility has extensive help screens that explain the program options, so this section does not cover each option in detail.

Accessing The Setup Utility

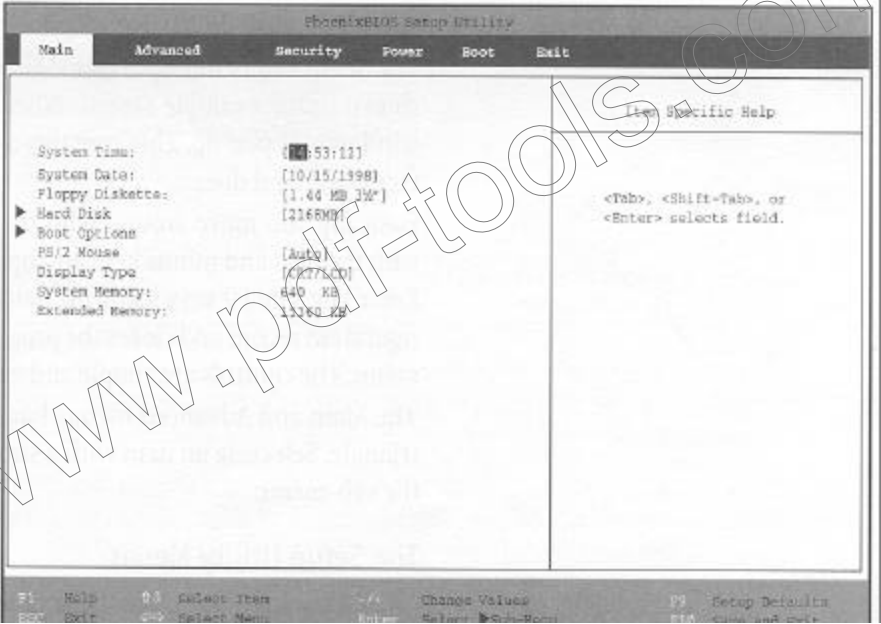
To access the Setup Utility you press the F2 key during the Power On Self Test as the computer is first starting up. The Setup Utility then loads after a brief pause.

The Setup Utility Interface

The Setup Utility is divided into six sections or “menus” with several items listed on each menu. The pages include the Main, Advanced, Security, Power, Boot and Exit screens. The Phoenix BIOS has a comprehensive “Item Specific Help” that appears on screen when an item is selected. When you run the Setup Utility, the Main screen appears. The program controls are listed at the bottom of the screen. The figure on the next page shows what the screen looks like.

Mini Notebook Computer

Phoenix BIOS
Setup Utility
The Main menu page
appears first when you run
the utility.



Interface Commands

The Setup Utility interface commands are listed at the bottom of the screen, as shown in the example screen. When the F1 key, the General Help window will pop up. This contains a detailed explanation of what each interface command does. Basically, you move around with the arrow keys, change settings or “values” with the plus and minus keys and open submenus or close things with the Enter key. The F9 key loads the Setup Defaults, the F10 key saves a new configuration record and closes the program. The Esc key jumps you to the Exit menu. The controls are simple and easy to understand. The Main and Advanced menus have submenus marked by a right-pointing triangle. Selecting an item with a submenu and pressing the Enter key opens the submenu.

The Setup Utility Menus

The six menus in the Setup Utility have varying functions, as described below. Some of the menu settings are required for the system function properly. If you run into problems, run the utility and load the Setup Defaults to reestablish the correct settings.

Mini Notebook Computer

The Main Menu

The Main Menu has a number of system hardware configuration settings and also sets the system date and time, which you should confirm is not accurate.

Floppy Diskette

The Floppy Diskette item is set to Disabled in the default setting because the external floppy disk drive is an optional accessory. If you have a floppy disk drive you can set this item to the 1.44 Mb setting.

Boot Options

You can set whether the hardware configuration summary screen appears after the POST in this submenu. The default is Enabled. Leave the "Floppy check" item on the default setting of Disabled.

PS/2 Mouse

You can configure this manually, but we recommend using the default Auto setting for automatic configuration.

Display Type

These settings serve the same function as the Fn + F4 key command, which is more convenient to use. The default is CRT/LCD for simultaneous display on both the LCD panel and an external monitor.

The System Memory and Extended Memory settings are automatically detected.

Mini Notebook Computer



If you use an Operating System that uses ACPI power management the BIOS power management settings are not used by the OS.



If you enable Auto Save To Disk, the system will automatically and without warning save the system state to the hard disk drive and turn the computer off when the second Low Battery warning initiates. When you turn the computer on again the system resumes directly to the state that was saved.

The Advanced Menu

The Advanced menu settings, everything in the Advanced Chipset Control, I/O Device Configuration and Audio Options submenus are either required for the system to function correctly or are automatically configured, so you should not need to adjust them. The other items are variable as explained below. If you are using Windows 95 or later you can set the Plug & Play O/S line to Yes if it is not because Windows 95 supports Plug and Play. Leave the Large Disk Access mode on the default DOS setting if you are using any version of Windows. Other Operating Systems use the Other setting.

The Power Menu

This menu sets the power conservation options for the computer hardware. You can select one of the default schemes, Maximum Performance or Maximum Power Savings, or you can use the Customized option to set the power conservation options manually. The default setting is Disabled. You can leave it as is and let Windows manage power conservation.

The Boot Menu

The Boot menu mainly controls the boot device options. You can also disable the system configuration Summary screen that appears when the system is booting to speed up the boot process.

Mini Notebook Computer

The Boot Device Priority submenu lists the order in which the system looks at possible boot devices to find an Operating System to load. The options are listed in the order the system searches.

The default order is:

- | | |
|-------------------------|--------------------------------|
| 1. [Diskette Drive] | The external floppy disk drive |
| 2. [Hard Drive] | The internal hard disk drive |
| 3. [ATAPI CD-ROM Drive] | The external CD-ROM drive |

You can change the order of the list using the commands listed in the Item Specific Help for this submenu. If the system doesn't find an Operating System it continues through the list until it does. The normal boot process is to boot from the internal hard disk drive.

The Exit Menu

The Exit menu has several options for saving or discarding any changes you have made while using the Setup Utility, load the Setup Defaults or exit the program without making any changes. If you aren't sure the settings you made are correct you can discard them and start over, load the defaults to be safe. Pressing the Esc key from any location in the program jumps to this screen.

Normally, if you make any changes, you should save them before or while exiting the Setup Utility or those changes will not take effect when the system reboots because they will not have been recorded in the configuration record.

Additional Support Software

The computer comes with a range of additional support software, as listed in Chapter 1. Most of the support software is for Windows 95 and later and includes the video display drivers, other miscellaneous hardware drivers.

The Video Display Drivers

The computer comes with video display drivers for Windows 95 and NT. Since the majority of users will use Windows 95 with this computer, the following explanation of driver features is based on the Windows 95 driver.

If you get your computer with an Operating System installed, the video display driver should also be installed, so this section covers some information on using the display driver. We have assumed that anyone installing Windows on the computer will be familiar with Windows driver installation procedures and therefore only mention driver installation in brief.

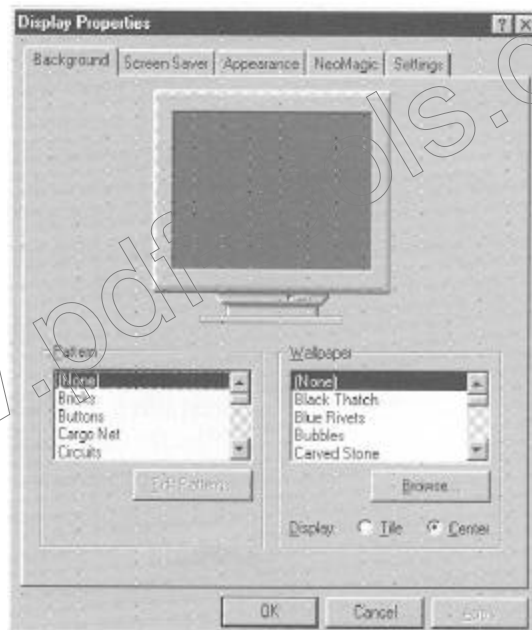
Installing or Updating The Driver

You can install or update the Windows 95 display driver from the Display Properties configuration screen. You can access Display Properties from the desktop by positioning the pointer on a blank section of the desktop, pressing the right button and selecting and clicking on the Properties item in the pop-up menu.

Mini Notebook Computer



1. Rightclick on the desktop.
2. Click on Properties



Mini Notebook Computer

Display Properties Options

There are several tabs on the Display Properties screen. The Background, Screen Saver, Appearance and Settings tabs are standard to Windows 95. The NeoMagic tab is specific to the NeoMagic driver. You also set the basic settings for the NeoMagic display driver in the Settings section. If the NeoMagic driver is not installed, the NeoMagic tab will not appear on the Display properties screen. To install or update the driver, do as follows. The example assumes you are updating an installed NeoMagic display driver.

1. Click on the Settings tab.
2. Click on the Advanced Properties button.
3. Click on the Change button then click on the Have Disk button.
4. Click the Browse button.
5. Select drive D: from the Drives menu, open the "Win95" folder in the "video" folder. The file "Nmgshd" should appear. Click the OK button.
6. Click the OK button in the Install From Disk window.
7. Click the OK button in the Select Device window.
8. Select the new driver in the Models window and click the OK button.
9. Click the Close button.

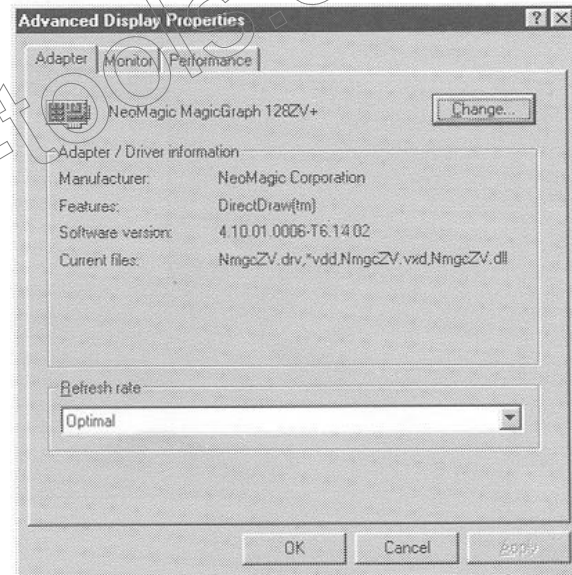
With a NeoMagic driver installed or updated you can then set the display settings. You configure the main display settings from the Settings tab.

Mini Notebook Computer



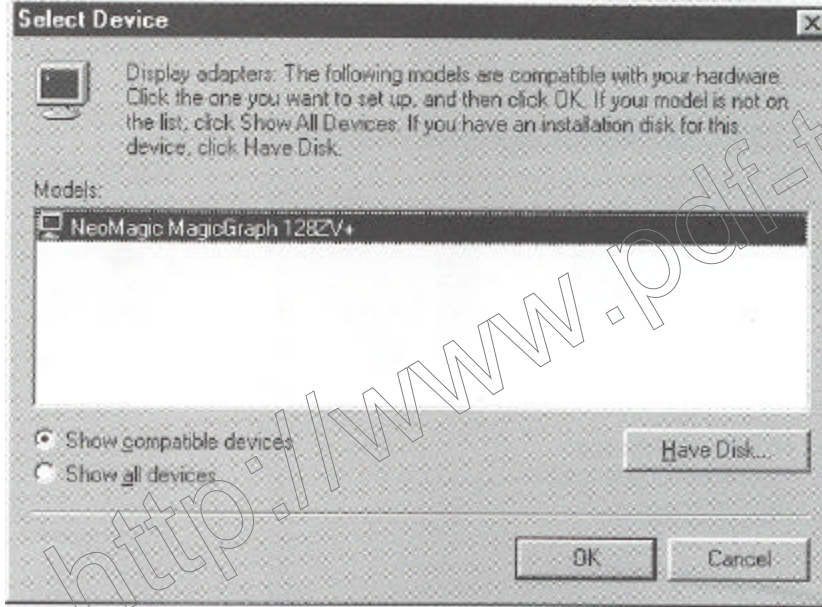
Click the Settings tab and then the Advanced Properties button.

Installing or Updating the Display Driver
The Advanced Display Properties window pops up.
Press the Change button.



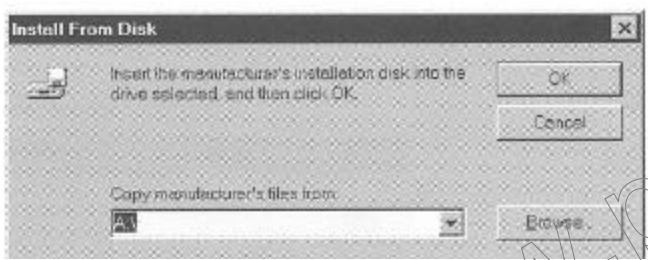
Mini Notebook Computer

Click the Have Disk button to locate the new driver.

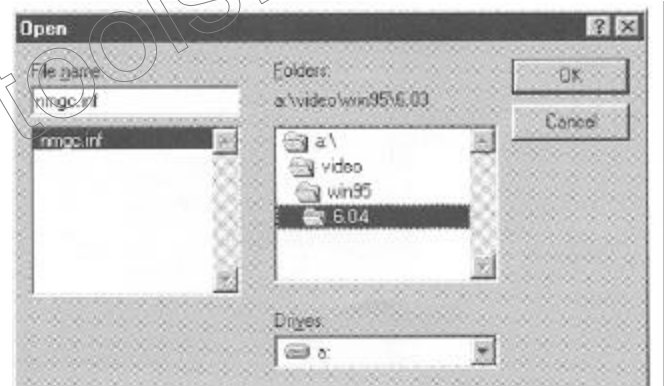


Mini Notebook Computer

Click the Browse button in the Install From Disk window to locate the driver.

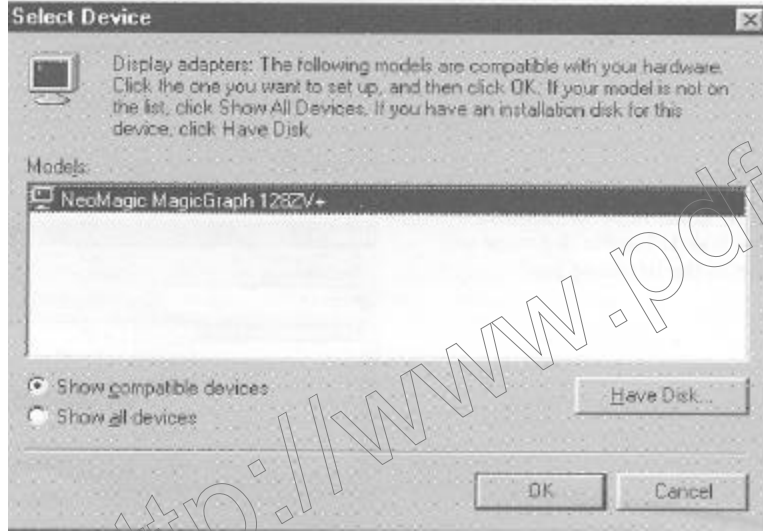


Find the driver folder on Support Floppy Disk 1. The file inf name will appear in the left hand box.



Mini Notebook Computer

Select the new driver in the List box and click the OK button to install the new driver.



Display Driver Configuration

You can configure the display driver settings in the Settings and NeoMagic panels of the Display Properties screen. Click on the tab for the panel you want to see to bring that panel to the front.

The Settings Panel

This section sets the main display driver configuration. The settings include the size of the color palette ("Color palette"), the screen resolution ("Desktop area") and the display font size ("Font size").

Color palette

This sets how many colors the system can draw from to create the displayed image. This does not mean they are all displayed on screen at the same time. The three options are "256 Color", "High Color (16 bit)" and "True Color (32 bit)". The High Color option has a palette of more than 65,000 colors. The True Color palette has millions of colors.

The larger the color palette, the more display memory is needed at any given resolution. The display memory supports a maximum color/resolution combination of 1024 x 768 pixels in 256 Color mode. For more colors you must choose a lower screen resolution.



If you set the LCD display resolution to a resolution other than 640 x 480, only part of the desktop area will appear on the screen. To view the offscreen area, you have to pan across the screen by putting the cursor to the edge of the screen in the direction you want to pan.

The screen image will display completely on an external monitor.

The larger color palette, the slower the screen response will be. It is advisable to set the palette size to the smallest useful size for your purposes. The 256 Color setting is sufficient for normal business computing. The True Color setting will display photographic images in realistic color.

Desktop area

This item sets the screen resolution generated by the display chip. This resolution applies to both the LCD screen and any external computer monitor you connect to the external VGA port.

Font Size

This sets the size of the display font. The options are Small Fonts, Large Fonts and Other. The default setting for the LCD screen is 1024 x 768 pixels with Small Fonts. You can adjust this as you prefer. The Other option lets you customize the display font size setting.

If you enable "Show settings icon on task bar" by clicking on the box beside it so that a check appears, a monitor icon will appear in the Windows task bar. When you click on the icon, a menu of available screen resolution and color depth combinations pops up and you can either select a setting or open the Display Properties screen to the Settings panel by clicking on the Adjust Display Properties item.

Mini Notebook Computer

The NeoMagic Panel

The NeoMagic panel lists the driver name and version number and allows you to adjust the screen refresh rate for an external monitor.

Adjusting Screen Refresh

The refresh rate is the speed at which the display chip redraws the image. Higher speeds produce less screen flicker and are easier on eyes. Most monitors will support all three options, 60Hz, 75Hz and 85Hz. We recommend using the fastest rate the external monitor will support. Drag the setting bar to the position for the rate you want to use. This does not affect the LCD refresh rate, which is fixed.

The Display Options Screen

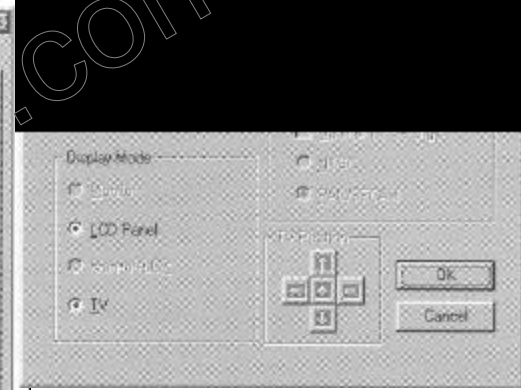
If you click on the Display Options button in the NeoMagic panel, the Display Options screen will pop up. You can set the Display Mode this screen to one of the three supported options, Monitor, LCD Panel and Monitor/LCD. These are the same settings as those controlled by the Fn + F4 command, so you may want to use the key command for greater convenience. An external monitor must be connected to select one of the Monitor options.

Please note that the TV options on this screen are grayed out because this computer does not have a TV Out port.

Mini Notebook Computer

The NeoMagic Panel

Adjust the screen refresh rate from this screen and the LCD/external monitor display mode in Display Options screen.



ASCENTIA

series-

mininotebook

User's Manual